

PATENT ABSTRACTS OF JAPAN

(11)Publication number : 09-327290

(43)Date of publication of application : 22.12.1997

(51)Int.Cl.

C12N 15/09

C07H 1/08

C07H 21/04

C12Q 1/68

(21)Application number : 08-149127

(71)Applicant : TOYOBO CO LTD

(22)Date of filing : 11.06.1996

(72)Inventor : ISHIDA YOSHIKAZU

IKEDA KATSUNORI

KAMIMURA HIDEKI

KAWAKAMI FUMIKIYO

KAWAMURA YOSHIHISA

(54) EXTRACTION AND PURIFICATION OF PLASMID DNA

(57)Abstract:

PROBLEM TO BE SOLVED: To purify the subject DNA in a high purity for a short time by adding a cytolytic liquid containing a chaotropic substance, an organic solvent and a nucleic acid-bonding solid-phase carrier to a microorganism or a cell containing a plasmid DNA, washing the resultant solid-phase carrier adsorbing the plasmid DNA thereon and then treating the washed solid-phase carrier with an eluent.

SOLUTION: A cytolytic liquid at pH 3-6 containing a chaotropic substance comprising a guanidine thiocyanate and sodium acetate-hydrochloric acid, etc., an extracting liquid comprising an organic solvent, etc., such as a buffer solution-saturated phenol and a nucleic acid-bonding solid-phase carrier comprising particles, etc., containing a superparamagnetic metallic oxide are added, mixed or brought into contact with a microorganism or a cell holding a plasmid DNA to adsorb the plasmid DNA on the solid-phase carrier. The solid-phase carrier adsorbing the plasmid DNA thereon is then washed with a wash liquid and the plasmid DNA is eluted from the washed solid-phase carrier with an eluent to thereby extract and purify the plasmid DNA from the microorganism or cell in high purity for a short time without requiring complicated operations.

LEGAL STATUS

[Date of request for examination]

26.03.2003

[Date of sending the examiner's decision of rejection]

[Kind of final disposal of application other than the examiner's decision of rejection or application converted registration]

[Date of final disposal for application]

[Patent number]

[Date of registration]

[Number of appeal against examiner's decision of rejection]

[Date of requesting appeal against examiner's decision of rejection]

[Date of extinction of right]

Copyright (C); 1998,2003 Japan Patent Office